Preface

This book is part of the Analog Circuit Design series and contains the revised contributions of all speakers of the 19th workshop on Advances in Analog Circuit Design (AACD), which was organized by Wolfgang Pribyl of Graz University of Technology. The workshop was held in the magnificent aula of the Graz University of Technology, Graz, Austria on March 23–25, 2010.

The book comprises 18 tutorial papers, divided in three chapters, each discussing a very relevant to-date topic in the area of analog circuit design. Each tutorial is presented by an expert in the field and state-of-the-art information is shared and discussed with the audience.

The topics of 2010 are:

1. Robust Design
2. Sigma Delta Converters
3. RFID

The aim of the AACD workshop is to bring together a group of expert designers to study and discuss new possibilities and future developments in the area of analog circuit design. Each AACD workshop has given rise to the publication of a book by Springer in their successful series of Analog Circuit Design. The series provides a valuable overview of analog circuit design and related CAD, mainly in the fields of basic analog modules, mixed-signal electronics, AD and DA converters, RF systems, robust and automotive electronics. It is a reference for whoever is engaged in these disciplines and wishes to keep abreast of the latest developments in the field. The full list of the previous books and topics in the series is enclosed below.

We sincerely hope that this 19th book continues the tradition and provides a valuable contribution to our Analog Design Community.

Herman Casier
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<tr>
<th>Year</th>
<th>Location</th>
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| 2009 | Lund (Sweden)    | Smart Data Converters  
Filters on Chip  
Multimode Transmitters                                  |
| 2008 | Pavia (Italy)    | High-speed Clock and Data Recovery  
High-performance Amplifiers  
Power Management                                           |
| 2007 | Oostende (Belgium) | Sensors, Actuators and Power Drivers for the Automotive and Industrial Environment  
Integrated PA's: from Wireline to RF  
Very High Frequency Front Ends                               |
| 2006 | Maastricht (The Netherlands) | High-Speed AD Converters  
Automotive Electronics: EMC issues  
Ultra Low Power Wireless                                     |
| 2005 | Limerick (Ireland)| RF Circuits: Wide Band, Front-Ends, DAC’s  
Design Methodology and Verification of RF and Mixed-Signal Systems  
Low Power and Low Voltage                                   |
| 2004 | Montreux (Switzerland) | Sensor and Actuator Interface Electronics  
Integrated High-Voltage Electronics and Power Management  
Low-Power and High-Resolution ADCs                           |
| 2003 | Graz (Austria)   | Fractional-N Synthesizers  
Design for Robustness  
Line and Bus drivers                                          |
| 2002 | Spa (Belgium)    | Structured Mixed-Mode Design  
Multi-Bit Sigma-Delta Converters  
Short-Range RF Circuits                                       |
| 2001 | Noordwijk (The Netherlands) | Scalable Analog Circuit Design  
High-Speed D/A Converters  
RF Power Amplifiers                                           |
| 2000 | Munich (Germany) | High-Speed A/D Converters  
Mixed-Signal Design  
PLLs and Synthesizers                                         |
| 1999 | Nice (France)    | (X)DSL and other Communication Systems  
RF-MOST Models and Behavioural Modeling  
Integrated Filters and Oscillators                           |
| 1998 | Copenhagen (Denmark) | 1-Volt Electronics  
Mixed-Mode Systems  
LNA's and RF Power Amplifiers for Communications               |
| 1997 | Como (Italy)     | RF Analog to Digital Converters  
Sensor and Actuator Interfaces  
Low-Noise Oscillators, PLLs and Synthesizers                   |
| 1996 | Lausanne (Switzerland) | RF CMOS Circuit Design  
Bandpass Delta-Sigma and Other Data Converters  
Translinear Circuits                                           |
| 1995 | Villach (Austria) | Low-Noise, Low-Power, Low-Voltage  
Mixed-Mode design with CAD tools  
Voltage, Current and Time References                           |
| 1994 | Eindhoven (The Netherlands) | Low-Power Low-Voltage  
Integrated Filters  
Smart Power                                                      |
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<td>Communication Circuits</td>
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<td>1992</td>
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<td></td>
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Robust Design, Sigma Delta Converters, RFID
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